Species		Historic range	Status	When listed	Critical habitat	Special rules
Scientific name	Common name					
* * *	*	*	*	*	*	*
Brodiaea pallida	Chinese Camp brodiaea	U.S.A. (CA)	E		NA	NA
* * *	*	*	*	*	*	*
Fritillaria striata	Greenhorn adobe lily	U.S.A. (CA)	T		NA	NA
* * *	*	*	*	*	*	*
Onagraceae—Evening primrose family:						
* * *	*	*	*	*	*	*
Clarkia springvillensis	Springville clarkia	U.S.A. (CA)	T		NA	NA
* * *	*	*	*	*	*	*
Philadelphaceae—Mock orange family:						
Carpenteria californica	Carpenteria	U.S.A. (CA)	T		NA	NA
* * *	*	*	*	*	*	*
Polemoniaceae—Phlox family:						
* * *	*	*	*	*	*	*
Navarretia setiloba	Piute Mountains navarretia	U.S.A. (CA)	T		NA	NA
* * *	*	*	*	*	*	*
Portulacaceae—Purslane family:						
* * *	*	*	*	*	*	*
Calyptridium pulchellum	Mariposa pussypaws	U.S.A. (CA)	E		NA	NA
* * *	*	*	*	*	*	*
Scrophulariaceae—Snapdragon family:						
* * *	*	*	*	*	*	*
Mimulus shevockii	Kelso Creek monkeyflower	U.S.A. (CA)	E		NA	NA
* * *	*	*	*	*	*	*
Verbenaceae—Vervain family:						
* * *	*	*	*	*	*	*
Verbena californica	Red Hills vervain	U.S.A. (CA)	T		NA	NA
* * *	*	*	*	*	*	*

Dated: September 27, 1994.

Mollie H. Beattie,

Director, U.S. Fish and Wildlife Service.

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RIN 1018-AC 98

Endangered and Threatened Wildlife and Plants; Proposed Endangered Status for the Plant Lessingia Germanorum (San Francisco Lessingia) and Threatened Status for the Plant Arctostaphylos Imbricata (San Bruno Mountain manzanita) From California

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The U.S. Fish and Wildlife Service (Service) proposes endangered status pursuant to the Endangered Species Act of 1973, as amended (Act) for *Lessingia germanorum* (San Francisco lessingia), and threatened status for *Arctostaphylos imbricata* (San Bruno Mountain manzanita), two plants from the San Francisco peninsula of California. *Lessingia germanorum* occurs in central dune scrub, and is known from five sites on the Presidio in San Francisco County, and one site on San Bruno Mountain in San Mateo County, California. This taxon has been affected by and is endangered by competition with invasive alien vegetation, residential and commercial development, sand quarrying, increased pedestrian traffic and recreational activities, inadequate regulatory mechanisms, bulldozing, shading by

native and non-native vegetation, incidental use of fertilizers, and other anthropogenic activities. *Arctostaphylos imbricata* occurs in coastal scrub habitat, and is only known from five small populations on San Bruno Mountain in San Mateo County; this plant has been affected by and is vulnerable to changes in fire frequency. This taxon is also threatened by collection, as it is used horticulturally as an ornamental plant. Because of the limited number of extant individuals of *A. imbricata* and *L. germanorum* and their severely restricted distribution, they also are subject to an increased likelihood of extinction from stochastic events. This proposal, if made final, would implement the Federal protection and recovery provisions afforded by the Act for these plants.

DATES: Comments from all interested parties must be received by December 5, 1994. Public hearing requests must be received by November 18, 1994.

ADDRESSES: Comments and materials concerning this proposal should be sent to the Field Supervisor, U.S. Fish and Wildlife Service, 2800 Cottage Way, Room E–1803, Sacramento, California 95825–1846. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

FOR FURTHER INFORMATION CONTACT: Kirsten Tarp (see **ADDRESSES** section) at 916/978–5805.

SUPPLEMENTARY INFORMATION:

Background

Lessingia germanorum (San Francisco lessingia) and *Arctostaphylos imbricata* (San Bruno Mountain manzanita) are endemic to the northern San Francisco peninsula in California. *Lessingia germanorum* is found within the central dune scrub community. *Arctostaphylos imbricata* is a component of the coastal scrub community.

The natural communities of the northern San Francisco peninsula have undergone a number of changes as a result of human-caused activities. The northern part of the San Francisco peninsula is highly urbanized. By 1984, over 90 percent of the northern peninsula's natural habitat had been disturbed or eliminated (Orsak and Schooley 1984). Urbanization has eliminated *Lessingia germanorum* from part of its range, and intensive commercial and residential development are ongoing. San Bruno Mountain was the last large parcel of open space in the northern San Francisco peninsula, and pursuant to section 10(a)(1)(B) of the Act, was the site of the United States' first habitat conservation plan after a decade-long land use battle (Bean *et al.* 1991). Urban development also has fragmented the remaining habitats for these plants. Habitat fragmentation increases the risks of extinction due to chance events such as pest or disease outbreaks, reproductive failure (which is possibly devastating to annual plants), or other natural or human-caused disasters. Other anthropogenic activities such as sand quarrying, increased pedestrian traffic and recreational activities, change in fire frequency, bulldozing, or the incidental use of fertilizers, also variously threaten the remaining occurrences of these plants.

Discussion of the Two Species Proposed for Listing

Adelbert von Chamisso first collected *Lessingia germanorum* in 1816 on the sand hills of San Francisco, California (Howell 1929). Chamisso described *L. germanorum* in 1829 and named it in honor of the Lessings, a German family of scientists and authors. John Thomas Howell (1929) recognized 11 varieties of *L. germanorum*. According to the rules for botanical nomenclature, when a new subspecies is described in a species not previously divided into infraspecific taxa, an autonym (an automatically created name) is created (i.e. *Lessingia germanorum* var. *germanorum*). Howell distinguished *L. germanorum* var. *germanorum* from the other varieties by the presence of few glands and by the absence of either odorous or bitter glandular secretions. Other treatments (Ferris 1959, Munz and Keck 1968) also recognized varieties of *L. germanorum*. Currently *L. germanorum* is recognized as a distinct species (Lane 1993).

Lessingia germanorum is a slender annual of the aster family (Asteraceae) with diffusely branched stems 10 to 30 centimeters (cm) (4 to 12 inches (in)) high. The herbage and stems are glandless and covered with grayish, loosely interwoven hairs. Tubular lemon yellow disc flowers with a brownish or purplish band are clustered into heads that are solitary at the end of branchlets. The seeds, which are attached to a crown of hairlike bristles, are light and easily carried by the wind. *Lessingia germanorum* typically flowers between August and November.

Historically, *Lessingia germanorum* occurred within the coastal dune scrub community throughout the San Francisco peninsula. Currently *L. germanorum* is restricted to the Presidio area of the San Francisco peninsula, and one occurrence near the base of San Bruno Mountain. *L. germanorum* grows on remnant sand dunes and sand terraces in open areas with blowing sand (Susan Smith, Yerba Buena Chapter, California Native Plant Society, pers. comm., 1992), at an elevational range between 24 to 91 meters (m) (80 to 300 feet (ft)). It is associated with *Chorizanthe cuspidata, Lotus scoparius,* and *Lupinus arboreous* (or *Lupinus chamissonis*). Five small populations, four natural and one introduced, occur within the Presidio in San Francisco County. One of the populations on the Presidio was established after approximately 10 cubic yards of sand was removed from the site of another population for use on the base golf course. In 1989, an additional population was discovered on San Bruno Mountain in northern San Mateo County. Collectively, the populations inhabit less than 0.8 hectares (2 acres) (Terri Thomas, Golden Gate National Recreation Area, pers. comm., 1993; Paul Reeberg, National Park Service, pers. comm., 1993). Population numbers for *L. germanorum* vary from year to year, but from 1980 to 1989 the total on the Presidio was less than 1,500 individuals per year (California Department of Fish and Game (CDFG) 1989). The population on San Bruno Mountain is estimated to have 1,600 to 1,800 individuals (Paul Reeberg, pers. comm., 1993). The five small populations within the Presidio have been managed by the Department of Defense but will be transferred to the National Park Service effective October 1, 1994. The population on San Bruno Mountain is jointly owned by Daly City and a private landowner (Annemarie Quevedo, Assistant Planner for Daly City, *in litt.*, 1992).

The populations on the Presidio are threatened by competition with invasive alien vegetation, shading from native and introduced shrubs and trees, foot traffic, sand quarrying, bulldozing, and other anthropogenic activities (CDFG 1989; California Natural Diversity Database (CNDDB) 1992; Susan Smith, pers. comm., 1992; Paul Reeberg, pers. comm., 1993; Terri Thomas, pers. comm., 1993). The population located on San Bruno Mountain is threatened by urbanization, trampling, competition from invasive alien vegetation, and bulldozing (Thomas Reid Associates, *in litt.* 1991; Susan Smith, pers. comm., 1992; Paul Reeberg, pers comm., 1993). Both the Presidio and San Bruno Mountain populations are threatened by stochastic environmental events.

Alice Eastwood (1931) originally described *Arctostaphylos imbricata* in 1931, based on material collected from the San Bruno Hills in 1915. Until 1967, various authors either synonymized *A. imbricata* with *A. andersonii* (Jepson

1939), or considered it to be a variety of *A. andersonii* (Adams in McMinn 1935). James Roof followed Eastwood's treatment and acknowledged *A. imbricata* as a distinct species (Roof 1967). Philip Wells (1988) subsumed *A. montariensis* as a subspecies of *A. imbricata*, necessitating the creation of an autonym as discussed above (i.e., *A. imbricata* ssp. *imbricata*). He since has recognized *A. imbricata* as a distinct species in his 1993 treatment of California *Arctostaphylos* (Wells 1993).

Arctostaphylos imbricata is a low spreading evergreen shrub of the heath family (Ericaceae) that lacks a basal burl. Attaining a height of 20 cm (8 in), this highly branched shrub forms mats that are up to about 6 meters (m) (6 yards (yd)) in diameter. The bright green oblong to ovate leaves are hairless, except on the midrib, and densely overlapping. Small white urn-shaped flowers appearing from February to May are densely clustered at the end of branchlets. After fire, *A. imbricata* regenerates from seed instead of resprouting from a basal burl. *A. imbricata* can be distinguished from its congeners by its prostrate habit and its shorter, densely arranged leaves and compact flower clusters (Roof 1967).

Arctostaphylos imbricata is restricted to San Bruno Mountain in northern San Mateo County. On San Bruno Mountain, five small occurrences cover approximately 80 hectares (33 acres) (Paul Reeberg, *in litt.*, 1993). The most abundant population has 400 to 500 plants; other populations have as few as 15 plants (Roman Gankin, San Mateo County Planning Department, pers. comm., 1993). The plant grows in rocky exposed areas such as open ridges within coastal scrub or manzanita scrub at an elevation range of 275 to 365 m (900 to 1,200 ft). Where it occurs, it is the dominant plant species, and may be associated with *Baccharis pilularis* (coyote brush), *Vaccinium ovatum* (huckleberry), *Rhamnus californica* (coffeeberry), and *Arctostaphylos uva-ursi* var. *suborbiculata* (bearberry). *A. imbricata* has never been known from more than the five populations that occur today. Four of the five populations occur on land owned by San Mateo County Parks and Recreation; the fifth population is privately owned (Thomas Reid Associates 1991). The proximity of this plant on San Bruno Mountain to human population centers and intensive development activities renders *A. imbricata* vulnerable to change in the frequency of fires (i.e., as a result of a fire suppression policy), which are needed for the plants to reproduce sexually. Its highly restricted distribution increases its susceptibility to catastrophic events such as disease or pest outbreak, severe drought, or other natural or human-caused disasters.

Previous Federal Action

Federal government actions on the two plants began on June 16, 1976, when the Service published a proposal in the **Federal Register** (41 FR 24523) to determine approximately 1,700 vascular plant species to be endangered pursuant to section 4 of the Act. The list of 1,700 plant taxa was assembled on the basis of comments and data received by the Smithsonian Institution and the Service in response to House Document No. 94–51 and the July 1, 1975, **Federal Register** publication. *Arctostaphylos imbricata* was included in the June 16, 1976, **Federal Register** document.

General comments received in relation to the 1976 proposal were summarized in an April 26, 1978, **Federal Register** publication (43 FR 17909). The Endangered Species Act Amendments of 1978 required that all proposals over 2 years old be withdrawn. A 1-year grace period was given to those proposals already more than 2 years old. In the December 10, 1979, **Federal Register** (44 FR 70796), the Service published a notice of withdrawal of the June 16, 1976, proposal, along with four other proposals that had expired.

The Service published an updated notice of review for plants on December 15, 1980 (45 FR 82480). This notice included *Arctostaphylos imbricata* and *Lessingia germanorum* (as *Lessingia germanorum* var. *germanorum*) as category 1 candidates for Federal listing. Category 1 taxa are those for which the Service has on file substantial information on biological vulnerability and threats to support preparation of listing proposals. On November 28, 1983, the Service published in the **Federal Register** a supplement to the Notice of Review (48 FR 53640). This supplement changed *L. germanorum* var. *germanorum* from a category 1 to a category 2 candidate. Category 2 taxa are those for which data in the Service's possession indicate listing is possibly appropriate, but for which substantial data on biological vulnerability and threats are not currently known or on file to support proposed rules.

The plant notice was revised again on September 27, 1985 (50 FR 39526). *Arctostaphylos imbricata* and *Lessingia germanorum* var. *germanorum* were included as category 1 candidates. Both species retained category 1 status in the most recent revision of the plant notice published on February 21, 1990 (55 FR 6184).

Mr. Brian O'Neill, General Superintendent of the Golden Gate National Recreation Area, petitioned the Service to emergency list *Lessingia germanorum* as an endangered species on May 28, 1991.

Although the Service did not emergency list *Lessingia germanorum*, it did publish a 90-day finding in the **Federal Register** on August 19, 1992 (57 FR 37513) that substantial information had been presented indicating that listing may be warranted. Section 4(b)(3)(B) of the Act requires the Secretary to make findings on petitions found to present substantial information indicating that the petitioned action may be warranted within 12 months of their receipt. The Service has conducted a status review and determined that the petitioned action is warranted. Publication of this proposed rule constitutes the final finding for the petitioned action.

Summary of Factors Affecting the Species

Section 4 of the Act (16 U.S.C. 1533) and regulations (50 CFR Part 424) promulgated to implement the listing provisions of the Act set forth the procedures for adding species to the Federal Lists of threatened and endangered species. A species may be determined to be endangered or threatened due to one or more of the five factors described in section 4(a)(1). These factors and their application to *Lessingia germanorum* Cham. (San Francisco lessingia) and *Arctostaphylos imbricata* Eastw. (San Bruno Mountain manzanita) are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* Threats facing the habitat of these plants include being threatened, eliminated, or adversely modified by one or more of the following: urbanization, change in fire frequency, competition with invasive alien vegetation, sand quarrying, off-road vehicles, bulldozing, foot traffic, and bicycle use.

The natural habitat of the San Francisco peninsula already has been severely curtailed due to urbanization. Historically, suitable *Lessingia germanorum* habitat has decreased by 90 percent since European settlement (CDFG 1990). Urban development extirpated populations of *L. germanorum* at Lone Mountain and Lake Merced (both in the City of San Francisco) (CNDDB 1992). Historical populations of *L. germanorum* at Mountain View Lake and Ocean View Downs also have been extirpated, presumably due to urban development and competition with invasive alien

vegetation (CDFG 1989). On San Bruno Mountain, approximately 4 hectares (10 acres) of potential habitat remains for *L. germanorum* (Paul Reeberg, pers. comm., 1993). Although it is unlikely that any additional significant populations will be located in this area, the area may be important for reintroduction efforts. Most of the central dune scrub on San Bruno Mountain has been covered by "homes, cemeteries, a flower farm, and the Colma Dump" (McClintock *et al.* 1990).

Urban development potentially threatens the population of *Lessingia germanorum* that occurs on San Bruno Mountain in San Mateo County outside the boundary for the San Bruno Mountain HCP (Paul Reeberg, pers. comm., 1993) (for a discussion of the HCP, see Factor D). A project has been approved for the construction of seven additional dwellings within a few hundred yards of the San Bruno population (Annemarie Quevedo, pers. comm., 1993). Activities associated with this development, such as trampling, would adversely affect this population.

Fragmentation of the coastal scrub dune community caused by past urban development also threatens this species. Habitat fragmentation has two primary effects. First, habitat fragmentation may alter the physical environment, changing the amount of incoming solar radiation, water, wind, or nutrients where the remnant vegetation occurs (Saunders *et al.* 1991). Second, when populations are fragmented into smaller, isolated units, risks of extinction due to chance events increases (see Factor E).

The habitat of *Lessingia germanorum* has been altered by the introduction of non-native vegetation. *L. germanorum* requires blowing sand and non-compacted soils. Off-road vehicle use, foot and bicycle traffic, and trampling by joggers compacts the soil and promotes the establishment of invasive alien vegetation (CDFG 1989; Susan Smith, pers. comm., 1992). All populations of *L. germanorum* are threatened by competition with aggressive alien plant species. *Carpobrotus* sp. (ice plant) covers extensive dune areas on the Presidio, stabilizing the dune system where it occurs. *L. germanorum* in contrast, requires some dune movement, which results in areas of exposed sand (CDFG 1989). Ice plant competes with *L. germanorum* at all five occurrences on the Presidio. In addition to ice plant, other alien plants competing with *L. germanorum*, include *Bromus diandrus, Avena barbata, Rumex* sp., *Raphanus* sp., and *Sonchus* sp. (Susan Smith, pers. comm., 1992). On San Bruno Mountain *Cortaderia* sp. (pampas grass) encroachment is a severe threat. CDFG reported that "without special protection and management, San Francisco lessingia will continue its declining trend" (CDFG 1992). Currently the populations of *L. germanorum* are being weeded by volunteers from the California Native Plant Society (CNPS). Without their assistance, *L. germanorum* would be outcompeted by the invasive alien vegetation.

The habitat of *Lessingia germanorum* also has been modified at one site by tree planting. Native and introduced shrubs and trees, including *Pinus radiata*, were planted at the Presidio in the late 1800's. These trees alter the habitat of *L. germanorum* by increasing the amount of shade (CDFG 1989; CNDDB 1992; Susan Smith, pers. comm., 1992), which adversely affects *L. germanorum*.

Bulldozing and sand quarrying activities have adversely affected *Lessingia germanorum*. Bulldozing to stabilize a slope on San Bruno Mountain destroyed about one-eighth of the *L. germanorum* population (Paul Reeberg, pers. comm., 1993; Thomas Reid Associates, *in litt.*, 1991). In January 1989, most of the habitat for one population of *L. germanorum* on the Presidio was destroyed when sand was removed to repair a tee on the base golf course (CDFG 1990). Sand quarrying is an on-going threat at this site; any sand quarrying activities that may occur in the future would negatively impact this species.

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* Overutilization currently is not known to be a factor for *Lessingia germanorum*. Overutilization is potentially a threat to *Arctostaphylos imbricata*, which is used horticulturally as an ornamental plant. Two years ago, cuttings were made from plants located at Kamchatka Point on San Bruno Mountain. The remnant portions of the plants indicated that the clippings were performed with horticultural expertise (Doug Heisinger, Park Ranger, San Mateo County Park, pers. comm., 1993). Some *A. imbricata* being sold at local plant sales may originate from clippings from the natural populations (Paul Reeberg, pers. comm., 1993). Unrestricted collecting for scientific or horticultural purposes or excessive visits by groups or individuals interested in seeing rare plants could potentially result from increased publicity following publication of a proposed rule to list these species.

C. *Disease or predation.* There are no known disease or predation threats to *Lessingia germanorum* or *Arctostaphylos imbricata* at this time.

D. *The inadequacy of existing regulatory mechanisms.* The State of California Fish and Game Commission has listed *Arctostaphylos imbricata* and *Lessingia germanorum* as endangered species under the California Endangered Species Act (Chapter 1.5 § 2050 *et seq.* of the California Fish and Game Code and Title 14 California Code of Regulations 670.2). Listing by the State of California requires individuals to obtain a memorandum of understanding with the CDFG to possess or "take" a listed species. Though both the California Endangered Species Act and the California Native Plant Protection Act prohibit the "take" of State-listed plants (California Native Plant Protection Act, Chapter 10 § 1908 and California Endangered Species Act, Chapter 1.5 § 2080), State law exempts the taking of such plants via habitat modification or land use changes by the owner. After CDFG notifies a landowner that a State-listed plant grows on his or her property, State law only requires that the land owner notify the agency "at least 10 days in advance of changing the land use to allow salvage of such a plant" (Native Plant Protection Act, Chapter 10 § 1913).

The California Environmental Quality Act (CEQA) requires a full disclosure of the potential environmental impacts of proposed projects. The public agency with primary authority or jurisdiction over the project is designated as the lead agency, and is responsible for conducting a review of the project and consulting with the other agencies concerned with the resources affected by the project. Section 15065 of the CEQA Guidelines requires a finding of significance if a project has the potential to "reduce the number or restrict the range of a rare or endangered plant or animal." Species that are eligible for listing as rare, threatened, or endangered but are not so listed are given the same protection as those species that are officially listed with the State or Federal governments. Once significant effects are identified, the lead agency has the option to require mitigation for effects through changes in the project or to decide that overriding considerations make mitigation infeasible. In the latter case, projects may be approved that cause significant environmental damage, such as destruction of endangered species. Protection of listed species through CEQA is, therefore, dependant upon the discretion of the lead agency.

CEQA pertains to projects that occur on lands other than Federal land. The National Environmental Policy Act

(NEPA) requires disclosure of the environmental effects of projects on Federal lands. Certain actions can be categorically excluded from the NEPA process when (a) the action or group of actions would have no significant effect on the quality of the human environment, and (b) the actions or group of actions would not involve unresolved conflicts concerning alternative uses of available resources. Exceptions to the categorical exclusions exist. One of these exceptions is when the action would affect a species listed or proposed to be listed on the List of Endangered or Threatened Species. Until a species is federally listed or proposed, this exception to the categorical exclusion would not be applied regardless of the State listing status.

A Memorandum of Understanding was established in 1987 between the Service, the National Park Service, Department of Defense, and CDFG for the purposes of mutual cooperation for management of sensitive native plant communities on the Presidio. However, *Lessingia germanorum* is not specifically addressed in the document (CDFG 1989). Sand quarrying and other activities that were endangering it have not been prevented and continue to threaten the species with extinction.

Arctostaphylos imbricata currently derives limited protection from the San Bruno Mountain Habitat Conservation Plan (HCP). An HCP, pursuant to sections 10(a)(1)(B) and 10(a)(2)(A) of the Act, is required for the Service to issue a permit for incidental take of a federally listed species of wildlife when such taking is incidental to, and not the primary purpose of, an otherwise lawful activity. HCPs are the mechanism through which incidental take of federally listed animals can be permitted for non-Federal actions. Future actions that are part of the permit are subject to review under section 7 of the Act.

The San Bruno Mountain HCP, developed in 1983 for three listed animals, also identified several candidate species in the area of concern, including *Arctostaphylos imbricata*. However, no species-specific management actions for *A. imbricata* are identified in the HCP, and none have been implemented. The protection to this plant afforded by the HCP may, therefore, be inadequate to insure its long-term survival.

E. *Other natural or manmade factors affecting its continued existence.* As discussed in Factor A, off-road vehicle use, foot and bicycle traffic, and trampling by joggers degrade the habitat of *Lessingia germanorum*. These activities also directly destroy individual plants. A bike path runs through the middle of one of the populations of *L. germanorum* (CNDDB 1992). Hiking trails occur adjacent to three populations (Terri Thomas, pers. comm., 1993).

All Presidio populations of *Lessingia germanorum* are subject to occasional unauthorized vehicle use. This disturbance directly destroys the plants and encourages establishment of invasive alien vegetation. Weedy species tend to colonize the tracks left by the vehicles (Susan Smith, pers. comm., 1992). An environmental education camp exists near the location of one population of *L. germanorum*. No signs or fences currently protect this site. These plants are vulnerable to habitat degradation from trampling due to their proximity to the camp.

When the ownership of the Presidio is transferred from the Department of the Army to the National Park Service, a marked increase in visitation by the public is expected (Terri Thomas, pers. comm., 1992, 1993). Increased foot traffic and other recreational activities are likely to negatively impact *Lessingia germanorum* because the populations are close to trails. In addition, the park is patrolled by police on horseback. Horses can trample the plants directly and compact the soil. The potential is high for populations of *L. germanorum* on the Presidio to be adversely impacted by these activities.

Garbage dumping has degraded the habitat at one site on the Presidio where *Lessingia germanorum* occurs (CNDDB 1992). Digging by pets also adversely affects *L. germanorum* at all sites on the Presidio by destroying individual plants (Laura Nelson, Golden Gate National Recreation Area, pers. comm., 1993; Peter Lacivita, San Francisco Corps of Engineers, pers comm., 1993).

On San Bruno Mountain, fertilizer run-off from a housing development above the slope supporting the largest population of *Lessingia germanorum* (Paul Reeberg, pers. comm., 1993) threatens this site. The nitrogen in these fertilizers promotes invasion by weed species that compete with *L. germanorum*.

Change in fire frequency threatens *Arctostaphylos imbricata*. Fire suppression policies have altered natural processes occurring on San Bruno Mountain. If a fire were to break out on San Bruno Mountain, attempts would be made by the County to extinguish the fire (Doug Heisinger, San Mateo County Park Department, pers. comm., 1993), to protect the surrounding homes and commercial buildings. *A. imbricata* is a fire-adapted plant that regenerates from seed rather than resprouting from a basal burl. After a fire, seeds that have accumulated in the soil (i.e. seed bank) sprout, which reestablishes the population. Between fires *A. imbricata* spreads vegetatively. Reproduction by seed is important to maintain the genetic diversity within the species. No significant seedling establishment occurs until fire eliminates competing vegetation, as with a recent fire at Kamchatka Point that killed the mature plants yet subsequently induced regeneration from seed (Roman Gankin, pers. comm., 1993). Fire replenishes soil nutrients and facilitates seed germination and seedling reestablishment by eliminating competition and shading. If the time between fires is too long, *A. imbricata* has little opportunity to reproduce sexually and individuals may become senescent. Conversely, fire occurring too frequently also poses a threat. If consecutive fires occurred within a short period (5 years), a non-sprouting species could be eliminated (Paul Zedler, San Diego State University, pers. comm., 1993; Michael Vasey, San Francisco State University, pers. comm., 1993). The plants either would not reach flowering age or not retain enough seed in the soil during the interval between fires to ensure the persistence of the species.

As discussed in Factor A, habitat fragmentation may adversely alter the physical environment. In addition, habitat fragmentation increases the risks of extinction by leaving the species vulnerable to chance events such as pest or disease outbreaks, reproductive failure (which can be devastating to annual plants), or other natural or human-caused disasters. The small isolated nature of the remaining populations and restricted distribution of both *Lessingia germanorum* and *Arctostaphylos imbricata* make extinction due to stochastic events more likely. A local catastrophe, such as a flood, disease outbreak, extended drought, landslide, or combination of several such events, could destroy part of a single population or entire populations. A local catastrophe also could decrease a population to so few individuals that the risk of extirpation due to genetic problems associated with small populations would increase.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by these species in determining to propose this rule. *Lessingia germanorum* has been reduced to five small populations on the Presidio in San Francisco County and one site on San Bruno Mountain in

San Mateo County; collectively, the populations inhabit less than 0.8 hectares (2 acres). This taxon has been adversely affected and is endangered by competition with invasive alien vegetation, sand quarrying, increased traffic and recreational activities, inadequate regulatory mechanisms, shading by alien and native vegetation, incidental use of fertilizers, bulldozing, residential and commercial development, other anthropogenic activities, and stochastic events. *Lessingia germanorum* is in danger of extinction throughout all or a significant part of its range, and the preferred action is, therefore, to list it as endangered. *Arctostaphylos imbricata* has always been rare, and is restricted to five small populations on San Bruno Mountain in San Mateo County. This species is vulnerable to alterations of the natural fire regime and stochastic events. Because the threats facing *Arctostaphylos imbricata* are long-term rather than imminent, the species is not now in immediate danger of extinction throughout all or a significant portion of its range. However, with continued alteration of the natural fire cycle, the plant is likely to become endangered within the foreseeable future. As a result, the preferred action is to list *A. imbricata* as threatened.

Critical Habitat

Critical habitat, as defined by section 3 of the Act and 50 CFR 424.02 (d) is: (i) the specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management considerations or protection and; (ii) specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. Designations of critical habitat must be based on the best scientific data available and must take into consideration the economic and other relevant impacts of specifying any particular area as critical habitat at the time the species is listed as endangered or threatened.

Section 4(a)(3) of the Act requires that, to the maximum extent prudent and determinable, the Secretary designate critical habitat concurrently with determining a species to be endangered or threatened. The Service finds that designation of critical habitat is not prudent for *Arctostaphylos imbricata* and *Lessingia germanorum*, at this time. Because *A. imbricata* and *L. germanorum* face the threat of collection, the publication of precise maps and descriptions of critical habitat in the **Federal Register** would make these plants more vulnerable to incidents of collection and, therefore, could contribute to the decline of this species and increase enforcement problems. The listing of *A. imbricata* and *L. germanorum* also publicizes their rarity and, thus, can make these plants attractive to researchers, curiosity seekers, or collectors of rare plants. *A. imbricata* occurs at very few locations entirely on San Bruno Mountain. Any activity that would adversely modify critical habitat would likely jeopardize the continued existence of the species as well. The designation of critical habitat therefore would not provide additional benefit for this species beyond the protection afforded by listing. Designation of critical habitat therefore would not be prudent for *A. imbricata* or *L. germanorum*.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain activities. Recognition through listing encourages and results in conservation actions by Federal, State, and private agencies, groups, and individuals. The Act provides for possible land acquisition and cooperation with the State and requires that recovery actions be carried out for all listed species. The protection required of Federal agencies and the prohibitions against certain activities involving listed plants are discussed, in part, below.

Section 7(a) of the Act requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR Part 402. Section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service.

Five populations of *Lessingia germanorum* occur on Federal land managed by the Department of Defense. *Arctostaphylos imbricata* occurs within the San Bruno Mountain Habitat Conservation Plan area.

Listing these two plants would provide for development of a recovery plan(s) for them. Such plan(s) would bring together both State and Federal efforts for conservation of the plants. The plan(s) would establish a framework for agencies to coordinate activities and cooperate with each other in conservation efforts.

The plans would set recovery priorities and estimate costs of various tasks necessary to accomplish them. They also would describe site-specific management actions necessary to achieve conservation and survival of the two plants. Additionally, pursuant to section 6 of the Act, the Service would be able to grant funds to affected States for management actions promoting the protection and recovery of these species.

The Act and its implementing regulations found at 50 CFR 17.61, 17.62, and 17.63 for endangered plants and 50 CFR 17.71 and 17.72 for threatened plants set forth a series of general prohibitions and exceptions. With respect to *Lessingia germanorum*, proposed to be listed as endangered, all trade prohibitions of section 9(a)(2) of the Act, implemented by 50 CFR 17.61, would apply. These prohibitions, in part, make it illegal with respect to any endangered plant for any person subject to the jurisdiction of the United States to import or export; transport in interstate or foreign commerce in the course of a commercial activity; sell or offer for sale this species in interstate or foreign commerce; remove and reduce to possession the species from areas under Federal jurisdiction; maliciously damage or destroy any such species on any area under Federal jurisdiction; or remove, cut, dig up, damage, or destroy any such endangered plant species on any other area in knowing violation of any State law or regulation or in the course of any violation of a State criminal trespass law.

Arctostaphylos imbricata, proposed to be listed as threatened, would be subject to similar prohibitions (16 U.S.C. 1538(a)(2)(E); 50 CFR 17.61, 17.71). Seeds from cultivated specimens of threatened plant taxa are exempt from these prohibitions provided that a statement "of cultivated origin" appears on the shipping containers. Certain exceptions apply to agents of the Service and State conservation agencies. The Act and 50 CFR 17.62, 17.63, and 17.72 also provide for the issuance of permits to carry out otherwise prohibited activities involving endangered and threatened plant species under certain circumstances. The Service anticipates few trade

permits would ever be sought or issued for the two species because the plants are not common in cultivation or in the wild. Requests for copies of the regulations on listed plants and inquiries regarding them may be addressed to the U.S. Fish and Wildlife Service, Ecological Services, Permits Branch, 911 N.E. 11th Avenue, Portland, Oregon 97232–4181 (503/231–6241) (FAX:503/231–6243).

Public Comments Solicited

The Service intends that any final action resulting from this proposal will be as accurate and as effective as possible. Therefore, comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning this proposed rule are hereby solicited. Comments particularly are sought concerning:

(1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to *Lessingia germanorum* and *Arctostaphylos imbricata*;

(2) the location of any additional populations of these species and the reasons why any habitat should or should not be determined to be critical habitat as provided by section 4 of the Act;

(3) additional information concerning the range, distribution, and population size of *Lessingia germanorum* and *Arctostaphylos imbricata*;

(4) current or planned activities in the subject area and their possible impacts on *Lessingia germanorum* and *Arctostaphylos imbricata*, or their possible impacts on a proposal to designate critical habitat for *L. germanorum*;

(5) specific information on the amount and distribution of suitable occupied or unoccupied habitat in the area of *Lessingia germanorum*, including updated information and maps on land ownership and land designation;

(6) specific information on the biological value of areas that could be proposed as critical habitat, to other listed, proposed, or candidate species, and the relation of a proposal to designate critical habitat to maintaining biodiversity and ecosystem integrity;

(7) any foreseeable economic and other impacts resulting from a proposed designation of critical habitat for *Lessingia germanorum*;

(8) specific examples of acts of taking or vandalism that have destroyed or damaged individuals or populations of *Lessingia germanorum* or *Arctostaphylos imbricata*; and

(9) the methodology the Service might use, under section 4(b)(2) of the Act, in determining if the benefits of excluding an area from critical habitat outweigh the benefits of specifying the area as critical habitat;

Any final decision on this proposal will take into consideration the comments and any additional information received by the Service, and such communications may lead to a final regulation that differs from this proposal.

The Act provides for a public hearing on this proposal, if requested. Requests must be received within 45 days of the date of publication of the proposal. Such requests must be made in writing and addressed to the Field Supervisor of the Sacramento Field Office (see **ADDRESSES** section).

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Act. A notice outlining the Service's reasons for this determination was published in the **Federal Register** on October 25, 1983 (48 FR 49244).

References Cited

Bean, M.J, Fitzgerald, S.G. and M.A. O'Connell. 1991. Reconciling conflicts under the Endangered Species Act: The habitat conservation planning experience. World Wildlife Fund.

California Department of Fish and Game. 1988. California native plant status report for *Arctostaphylos imbricata*. Unpublished report 4 pp.

California Department of Fish and Game. 1989. Report to the Fish and Game Commission on the status of San Francisco Lessingia (*Lessingia germanorum*). California Department of Fish and Game, Natural Heritage Division Status Report 89–15, unpublished report 15 pp.

California Department of Fish and Game. 1990. California Native Plant Status Report for *Lessingia germanorum* var. *germanorum*. Unpublished report 4 pp.

California Department of Fish and Game. 1992. 1991 annual report on the status of California State listed threatened and endangered animals and plants. 193 pp.

California Natural Diversity Database. 1992. Rarefind: A database application for the California Dept. of Fish and Game Natural Heritage Division data.

Eastwood, A. 1931. New species of plants from western North America. Proc. Calif. Acad. Sci. Ser. 4, 20:149–150.

Ferris, R. 1959. Taxonomic notes on western plants. Contr. Dud. Herb. 5:99–108.

Howell, J.T. 1929. A systematic study of the genus Lessingia Cham. Univ. of Calif. Pub. in Botany 16:1–44.

Jepson, W. 1939. *A Flora of California*, Vol. III. Assoc. Students Store, University of California, Berkeley.

Lane, M. 1993. *Lessingia*. In: *The Jepson Manual Higher Plants of California*. James C. Hickman, Editor. pp 304–307. University of California Press, Berkeley.

McClintock, E., W. Knight and N. Fahy. 1968. A flora of the San Bruno Mountains, San Mateo County, California. Proc. Calif. Acad. Sci. Ser. 4, 32:626

McClintock, E., P. Reeberg and W. Knight. 1990. A flora of the San Bruno Mountains. California Native Plant Society special publication 8. Sacramento, CA.

McMinn, H. E. 1935. Manual of Flowering Shrubs of California. University of California Press, Berkeley, California.

Munz, P. A. 1959. *A California Flora*. University of California Press, Berkeley

Munz, P. and D. Keck. 1968. *A California Flora and Supplement*. University of California Press, Berkeley.

Orsak, L. and D.E. Schooley. 1984. San Bruno Mountain, The San Francisco Peninsula's priceless refuge for rare and endangered species. Pacific Discovery 37:4–9.

Roof, J.B. 1967. *Arctostaphylos montariensis*, a new species of manzanita from San Mateo County, California. Four Seasons 2(3):6–16.

Saunders, D.A., R.J. Hobbs, and C.R. Margules. 1991. Biological consequences of ecosystem fragmentation: A review. Conservation Biology 5:18–32.

Thomas Reid Associates. 1991. Rare plants on San Bruno Mountain 1991 update, unpublished.

Wells, P.V. 1988. New combinations in *Arctostaphylos* (Ericaceae): Annotated list of changes in status. Madrono 35:330–341.

Wells, P.V. 1993. *Arctostaphylos*. In: *The Jepson Manual Higher Plants of California*. James C. Hickman, Editor. University of California Press, Berkeley, CA. pp 545–559.

Author

The primary author of this proposed rule is Kirsten Tarp (see **ADDRESSES** section); telephone 916/978–4866.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, and Transportation.

Proposed Regulation Promulgation

Accordingly, the Service hereby proposes to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500, unless otherwise noted.

2. Section 17.12(h) is amended by adding the following, in alphabetical order under the families indicated, to the List of Endangered and Threatened Plants:

§ 17.12 Endangered and threatened plants.

* * * * *

(h) * * *

Species		Historic range	Status	When listed	Critical habitat	Special rules
Scientific name	Common name					
*	*	*	*	*	*	*
Asteraceae—Aster family:						
*	*	*	*	*	*	*
Lessingia germanorum (=*Lessingia germanorum* var. *germanorum*).	San Francisco lessingia	U.S.A. (CA)	E		NA	NA
*	*	*	*	*	*	*
Ericaceae—Heath family:						
*	*	*	*	*	*	*
Arctostaphylos imbricata (=*Arctostaphylos imbricata* ssp. *imbricata*).	San Bruno Mountain manzanita	U.S.A. (CA)	T		NA	NA
*	*	*	*	*	*	*

Dated: September 23, 1994.

Mollie M. Beattie,

Director, U.S. Fish and Wildlife Service.

[FR Doc. 94-24492 Filed 9-30-94; 8:45 am]

BILLING CODE 4310-55-P

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Finding on Petition and Initiation of Status Review for Koala

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of petition finding and status review.

SUMMARY: The U.S. Fish and Wildlife Service announces the 90-day finding that a petition to add the Australian koala to the List of Endangered and Threatened Wildlife has presented substantial information indicating that the action may be warranted. A status review of this species is initiated.

DATES: The finding announced herein was made on September 26, 1994. Comments and information may be submitted until February 1, 1995.

ADDRESSES: Comments, information, and questions should be submitted to the Chief, Office of Scientific Authority; Mail Stop: room 725, Arlington Square; U.S. Fish and Wildlife Service; Washington, D.C. 20240 (Fax number 703-358-2276). Express and messenger-delivered mail should be addressed to the Office of Scientific Authority; room 750, 4401 North Fairfax Drive; Arlington, Virginia 22203. The petition finding, supporting data, and comments will be available for public inspection, by appointment, from 8 a.m. to 4 p.m., Monday through Friday, at the Arlington, Virginia address.

FOR FURTHER INFORMATION CONTACT: Dr. Charles W. Dane, Chief, Office of Scientific Authority, at the above address (phone 703-358-1708).

SUPPLEMENTARY INFORMATION: Section 4(b)(3) of the Endangered Species Act of 1973, as amended, requires that within 90 days of receipt of a petition to list, delist, or reclassify a species, or to revise a critical habitat designation, a finding be made on whether the petition has presented substantial information indicating that the requested action may be warranted, and that such finding be published promptly in the Federal Register.

If the finding is positive, Section 4(b)(3) also requires commencement of a review of the status of the involved species. The U.S. Fish and Wildlife Service (Service) now announces a 90-day finding on a recently received petition.

The petition was submitted by Australians for Animals (in Australia) and the Fund for Animals (in the United States); about 40 additional organizations in the United States and Australia were named as supporting the petition. It was dated May 3, 1994, and was received by the Service on May 5, 1994. It requests that the koala (*Phascolarctos cinereus*), a bearlike Australian marsupial, be classified as endangered in New South Wales and Victoria, and as threatened in Queensland.

The koala once occurred over much of the three indicated states, as well as in part of South Australia, and numbered in the millions. The petition presents an extensive compilation of data, including recent direct testimony from authorities on the species, suggesting that the koala has declined greatly in distribution and numbers, and that its status is likely to continue to deteriorate. Reportedly, there are practically none left in South Australia and only a few thousand in New South Wales and Victoria; the Queensland population may be less than 10 percent of what it was in the 1920s.

The species was drastically reduced by excessive killing for its fur up through the 1920s. It subsequently was provided legal protection from such killing, but, according to the petition, remnant populations are relatively small and badly fragmented. Logging, agriculture, and other problems have eliminated at least two-thirds of the original forest and woodland habitat, further declines are occurring, and little of the remaining habitat is well protected. The species is totally dependent for food and shelter on certain types of trees within forests and woodlands. The destruction or degradation of this habitat will reduce the viability of populations, even if the animals are otherwise protected, and